

(21) Application No 8618604

(22) Date of filing 30 Jul 1986

(71) Applicant  
Petyard Limited

(Incorporated in United Kingdom)

Unit 1C, 72 Catherine Street West, Denton, Manchester  
M34 3SB

(72) Inventor  
Geoffrey Anthony William

(74) Agent and/or Address for Service  
Wilson Gunn & Ellis,  
41-51 Royal Exchange, Cross Street, Manchester M2  
7BD

(51) INT CL<sup>\*</sup>  
H04H 1/02

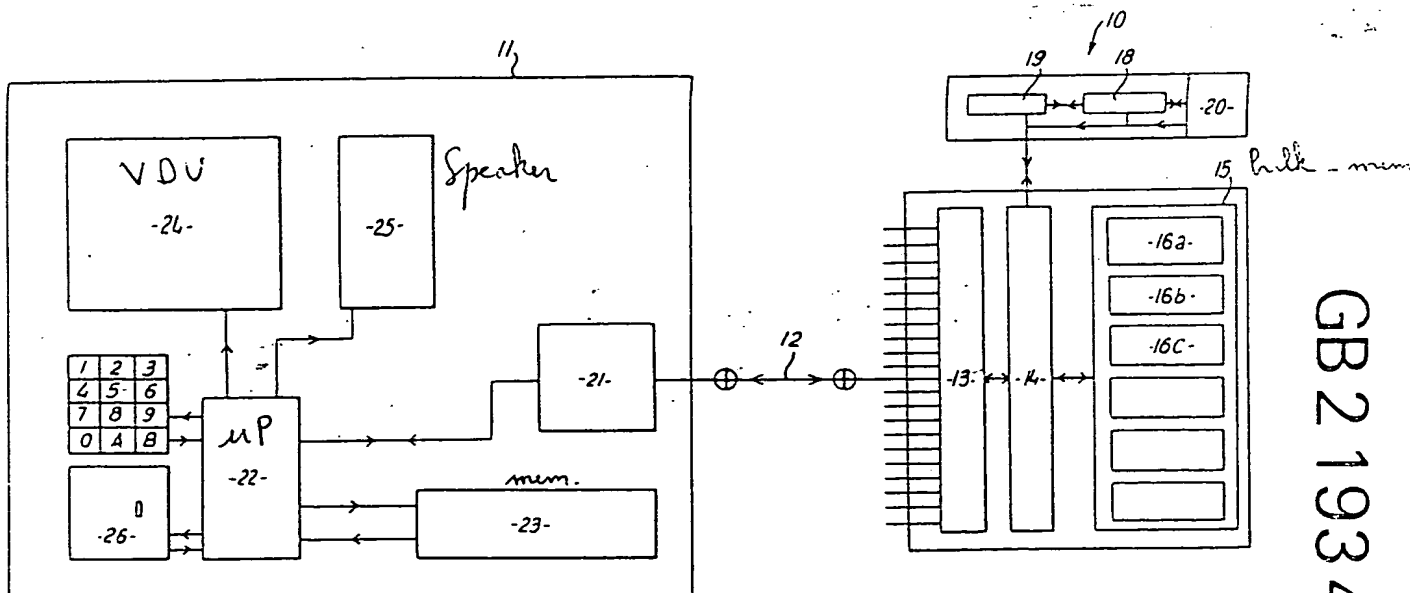
(52) Domestic classification (Edition J):  
H4R 17F CSS

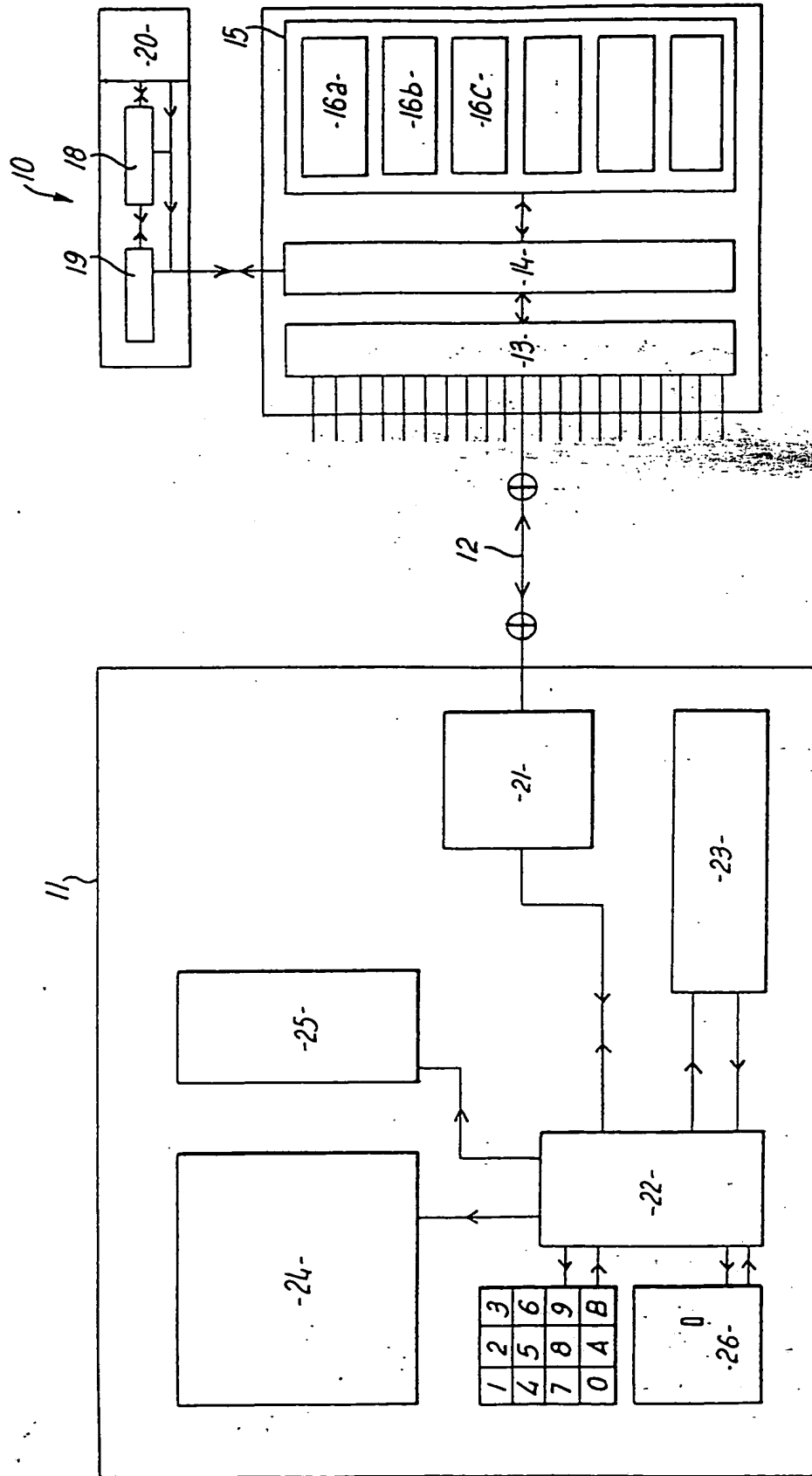
(56) Documents cited  
GB A 2178275 GB 1004453 EP A 0140593  
GB A 2166328

(58) Field of search  
H4R  
G4V  
Selected US specifications from IPC sub-class H04H

DOC (54) Apparatus for distributing entertainment to subscribers

(57) Entertainment apparatus includes a central computer arrangement (10) and a plurality of remote juke units (11) selectively connectable to the computer arrangement (10) via, for example, telephone lines (12). The arrangement (10) has a memory (15) which can hold in digital form a plurality of entertainment items such as records or videos or combinations of the two. Each juke unit (11) can have a modem (2) a VDU (24) a speaker (25) and a coin receipt mechanism (26) to enable a user to pay at the juke unit (11) to hear and/or see an entertainment item stored in the central computer (10).





## SPECIFICATION

## Entertainment apparatus

5 It has long been well known to provide a "juke box" in a hotel or other establishment to enable users to obtain amusement/entertainment by inserting coins and selecting records to be played. This system has the disadvantage that the juke box itself is of high capital value, needs constant attention for emptying and replacement of records and repair, and a constant supply of records is needed, to be added constantly if current popular records are to be supplied. Because of their physical bulk, many juke boxes are now disposed in cellars or other non-public rooms, and remote "coin and select" units mounted in public rooms. This avoids the bulk problem, but increases the capital costs. For the establishment manager, the trouble and expense of a juke box are often not repaid by the takings and for many establishments the provision of a juke box is looked upon as a loss-making customer service. It is an object of the present invention to provide an entertainment whereby some or all of the above disadvantages can be obviated or minimised.

Accordingly the invention provides entertainment apparatus comprising a computer having memory, processing circuitry capable of reading into and out of the memory, and a plurality of entertainment items stored in said memory in digital form, a plurality of remote juke units each having means for reproducing entertainment items, display means for displaying to a user a list of entertainment items available, selector means to enable a user to choose an item from said list, and payment means whereby a user can pay for an item selected, means being provided to connect each juke unit to the computer.

Each juke unit can be installed in an establishment such as a pub or club, and the computer can be in a central location. Connection between the juke units and the central computer can be a permanent connection by a telephone or like line, but this would be expensive. Preferably the juke units would each include a modem and be connectable to the computer via a normal telephone line when desired, for example, when activated by a user.

Each juke unit can include a VDU and the list and other material can be displayed on the VDU. If the entertainment item consists of a video, plus music, or a video only, the video can be displayed on the VDU, simultaneously with the music (if any). If a music item "record" has been released without a video, the VDU can, during play, display a still of the artiste(s) or a stock video or video loop of the artiste(s).

The juke units can each have a connection to mains power, and can include an internal

memory which stores the list and any other information deemed necessary or desirable.

The juke units can each have a coin receiving and checking mechanism in combination with a button bank as selector means.

The juke units can also have an internal key-accessible management key board or like selector means enabling the management to choose a range of items to be available for play from a large number stored in the central computer.

The list can be stored in a memory in the juke unit, and updated from the central memory each time connection is made or after each amendment to the central computer memory.

The invention will be described further, by way of example, with reference to the accompanying drawings, wherein the single figure is a block diagram illustrating a preferred apparatus of the invention.

A preferred entertainment system of the invention includes a central computer arrangement 10 and a plurality of remote juke units 11 selectively connectable to the computer 10 via a telephone line 12. The computer 10 includes a multiplexer/distributor 13 which serves to receive incoming "calls" from the telephone lines 12 and manage and handle their connection to a central processor unit 14 which connects with a memory 15 which has a plurality of individual parts or banks 16a, 16b etc.

The computer arrangement 10 also has an access unit 17 which includes a display 18 keyboard 19 and a player 20 whereby information can be entered into and read from the memory 15.

Individual juke units 11 can be connectable to the computer 10 via a telephone line 12 and a modem 21 connected to a processor 22 which interfaces with a memory 23, a VDU 24, a speaker 25 and a coin receipt and check mechanism 26. Unit 11 will have a connection (not shown) for mains electricity and an internal management selector (not shown) whereby management can change the "menu" of items available for play by users.

The V.D.U. can be of any convenient size. A small screen would serve merely as a display to show a list of records for play. A large screen can serve both as a menu display and to show video material stored in the central computer, if such material is available.

Normally, the entertainment items stored in the memory 15 will consist of digitally recorded music or like material usually released as "records", although combined audio-visual material, or purely visual material can be stored for play.

A user can, unless a video is being played, inspect the list on the VDU and select a desired record, video or combination.

It is envisaged that each unit 11 will be able to provide only a limited range of items from

the memory 15, for example the items stored in a limited number of banks 16a etc. The management will select those banks to be available which suit his clientele. variations being made even on a day to day basis if necessary.

In relation to older records or established types of records, such as "golden oldies", "country music", "reggae", etc., a regular demand pattern will probably be easily established and the capacity of the components of computer 10 and memory banks 16a, b, c adjusted accordingly. As regards current records, for example the "top twenty" or "top fifty", large numbers of requests can be expected and a memory bank or banks with facility for multiple simultaneous access or replay will be needed.

Because of the nature of the equipment, it will be possible to log the number of "plays" accorded to each item on the memory, at each unit 11 and overall, to establish payment rates to the operating owners and royalty rates to the artistes.

The invention is not limited to the precise details of the above and variations can be made thereto.

#### CLAIMS

1. Entertainment apparatus comprising a computer having memory, processing circuitry capable of reading into and out of the memory, and a plurality of entertainment items stored in said memory in digital form, a plurality of remote juke units each having means for reproducing entertainment items, display means for displaying to a user a list of entertainment items available, selector means to enable a user to choose an item from said list, and payment means whereby a user can pay for an item selected, means being provided for connecting each juke unit to the computer.

2. Apparatus as claimed in claim 1 wherein each juke unit is installed in an establishment and the computer is in a central location remote from the establishment.

3. Apparatus as claimed in claim 2 wherein connection between the juke units and the central computer is a permanent connection by a line.

4. Apparatus as claimed in claim 2, wherein the juke units each include a modem and are connectable to the computer upon demand.

5. Apparatus as claimed in claim 4 wherein the connection is via a telephone line.

6. Apparatus as claimed in any preceding claim, wherein each juke unit includes a VDU.

7. Apparatus as claimed in claim 6 wherein the list and other material can be displayed on the VDU.

8. Apparatus as claimed in claim 6 or 7 wherein the entertainment item consists of a video, plus music, or a video only, and the video can be displayed on the VDU, simulta-

neously with the music (if any).

9. Apparatus as claimed in claim 6 or 7 wherein a music item "record" has been released without a video and the VDU is energised to display during play, a still of the artiste(s) or a stock video or video loop of the artiste(s).

10. Apparatus as claimed in any preceding claim wherein the juke units each have a connection to mains power, and include an internal memory which stores the list and any other information deemed necessary or desirable.

11. Apparatus as claimed in any preceding claim wherein the juke units each have a coin receiving and checking mechanism in combination with a button bank as selector means.

12. Apparatus as claimed in any preceding claim wherein the juke units each have an internal key-accessible management selector means enabling the management to choose a range of items to be available for play from a number stored in the central computer.

13. Apparatus as claimed in claim 12 wherein the list is stored in a memory in the juke unit, and updated from the central memory each time connection is made or after each amendment to the central computer memory.

14. Entertainment apparatus substantially as hereinbefore described with reference to the accompanying drawings.

Published 1988 at The Patent Office, State House, 66/71 High Holborn, London WC1R 4TP. Further copies may be obtained from The Patent Office, Sales Branch, St Mary Cray, Orpington, Kent BR5 3RD. Printed by Burgess & Son (Abingdon) Ltd., Con. 1/87.

Page Blank (uspto)